

WHAT IS CLAIMED IS:

1. A method of drilling a bore hole, comprising:
 - (a) orienting a downhole drilling motor at a selected tool face angle, said drilling motor being
5 connected by a drill string to a surface drilling location;
 - (b) rotating said drill string at said surface location in a first direction until a first torque magnitude is reached at said surface location;
 - 10 (c) rotating said drill string the direction opposite said first direction until a second torque magnitude is reached at said surface location;
 - (d) measuring a fluid pressure in the drill string; and
 - 15 (e) adjusting the first and second torque magnitudes in response to changes in the fluid pressure.
2. The method as claimed in claim 1, wherein said
20 second torque magnitude is substantially equal to said first torque magnitude.
3. The method as claimed in claim 1, wherein:
 - said drill string is rotated in said first direction to said first torque magnitude without
25 changing said tool face angle; and,
 - said drill string is rotated in said direction opposite said first direction to said second torque magnitude without changing said tool face angle.

(6 ins)
121 numbered
no claim 8

Claims
9-16
1 numbered
at
8-15

4. The method as defined in claim 1 wherein said first torque magnitude is selected so that the drill string is rotated to a selected position axially therealong.

5. The method as defined in claim 4 wherein the selected position along the drill string is a position at which reactive torque from said drilling motor substantially stops communication along said still string.

6. The method of claim 1 wherein the first and second torque magnitudes are increased when the fluid pressure decreases and the torque magnitudes are decreased when the fluid pressure increases.

7. The method of claim 1 wherein the first and second torque magnitudes are adjusted to maintain the fluid pressure substantially at a value corresponding to a preferred operating pressure for the drilling motor.

8 9. The method of claim 1 further comprising momentarily increasing the torque above the first magnitude to cause a change in the tool face angle in the first direction.

9 10. The method of claim 1 further comprising momentarily increasing the torque above the second magnitude to cause a change in the tool face angle in the second direction.

11. A method of drilling a bore hole, comprising:
 (a) orienting a downhole drilling motor at a
 selected tool face angle, said drilling motor being
 connected by a drill string to a surface drilling
5 location;
 (b) rotating said drill string at said surface
 location in a first direction until a first amount of
 rotation is reached at said surface location;
 (c) rotating said drill string the direction
10 opposite said first direction until a second amount of
 rotation is reached at said surface location;
 (d) measuring a fluid pressure in the drill string;
 and
 (e) adjusting the first and second amounts of
15 rotation in response to changes in the fluid pressure.

12. The method as claimed in claim 11, wherein said
11 second amount of rotation is substantially equal to said
first amount of rotation.

20 13. The method of claim 11 wherein the first and second
12 amounts of rotation are increased when the fluid
pressure decreases and the amounts of rotation are
decreased when the fluid pressure increases.

25 14. The method of claim 11 wherein the first and second
13 amounts of rotation are adjusted to maintain the fluid
pressure at a value corresponding to a preferred
operating pressure for the drilling motor.

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14/ 15. The method of claim 11 further comprising
momentarily increasing the amount of rotation above the
first amount to cause a change in the tool face angle in
the first direction.

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15/ 16. The method of claim 11 further comprising
momentarily increasing the amount of rotation above the
second amount to cause a change in the tool face angle
in the second direction.

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